

What is claimed is:

1. A method of automatically taking corrective measures within a process plant, wherein the process plant includes a plurality of devices, the method comprising:

- 5 receiving data pertaining to the status of a device;
automatically generating an order in response to a detected problem with the device, wherein the detected problem is based on the data pertaining the status of the device and the order relates to taking one or more corrective measures to solve the problem; and
10 communicating the order.

2. The method of claim 1, wherein receiving data comprises receiving diagnostic information pertaining to the device.

3. The method of claim 1, wherein receiving data comprises receiving a maintenance request to service the device.

15 4. The method of claim 1, wherein receiving data comprises receiving a notification of a current problem with the device.

5. The method of claim 1, wherein receiving data comprises receiving a notification of a predicted future problem with the device.

20 6. The method of claim 1, wherein receiving data comprises receiving a use index representative of the status of the device.

7. The method of claim 6, wherein a maintenance system receives the use index and automatically generating an order comprises automatically generating a work order based on the use index.

8. The method of claim 7, wherein generating a work order comprises determining the one or more corrective measures to solve the problem.

9. The method of claim 7, further comprising displaying instructions for achieving a desired use index for the device.

5 10. The method of claim 7, wherein displaying instructions for achieving a desired use indices for the device comprises displaying instructions representative of the one or more corrective measures to solve the problem.

10 11. The method of claim 1, further comprising determining the status of the device based on at least one of process control data pertaining to the device and maintenance data pertaining to the device.

12. The method of claim 1, wherein generating an order comprises generating a work order for performing maintenance related to solving the problem with the device, and communicating the order comprises communicating the work order to one or more maintenance personnel capable of performing the maintenance.

15 13. The method of claim 1, wherein generating an order comprises generating an order for a part related to solving the problem with the device, and communicating the order comprises communicating the order for the part to a supplier of the part.

20 14. The method of claim 13, wherein generating an order comprises generating an order for a replacement device.

15. The method of claim 1, wherein communicating the order comprises communicating the order via the internet.

16. The method of claim 1, wherein communicating the order comprises communicating the order via a telephone communication link.

17. The method of claim 1, wherein communicating the order comprises communicating the order via a wireless communication link.

5 18. The method of claim 1, wherein generating an order comprises scheduling an order to be fulfilled prior to failure of the device.

19. The method of claim 1, further comprising tracking the status of the order.

10 20. The method of claim 19, wherein tracking the status of the order comprises:
receiving data pertaining to a report regarding the order; and
receiving data pertaining to the date of the report.

21. The method of claim 20, wherein receiving data pertaining to a report comprises receiving data pertaining to the location of the order.

15 22. The method of claim 20, wherein receiving data pertaining to a report comprises receiving data pertaining to the status of the order.

23. The method of claim 1, wherein receiving data comprises receiving data pertaining to one of a field device and field equipment.

20 24. The method of claim 1, wherein receiving data comprises receiving data pertaining to the status of one of a two-wire device, a three-wire device, a four-wire device, a wireless device, a device having a processor, a variable speed driver, a controller, a multiplexer, rotating equipment, an actuator, power generation

equipment, power distribution equipment, a transmitter, a sensor, a control system, a transceiver, a valve, a positioner, a switch, electrical equipment, a server, a hand held device, a pump, an I/O system, a smart field device, a non-smart field device, a HART protocol device, a Fieldbus protocol device, a PROFIBUS® protocol device, a
 5 WORLDVIP® protocol device, a Device-Net® protocol device, a AS-Interface protocol device, a CAN protocol device, a TCP/IP protocol device, an Ethernet device, an internet-based device, and a network communication device.

25. A system to be used in a process control environment for automatically taking corrective measures, wherein the process control environment includes a
 10 plurality of devices, the system comprising:
 a computer readable memory;
 a first routine stored on the computer readable memory and adapted to be executed on a processor to receive data pertaining to the status of a device;
 a second routine stored on the computer readable memory and adapted to be
 15 executed on a processor to automatically generate an order in response to the detected problem with the device, wherein the order relates to taking one or more corrective measure to solve the problem;
 a third routine stored on the computer readable memory and adapted to be executed on a processor to communicate the order.

20 26. The system of claim 25, wherein the first routine is adapted to receive diagnostic information pertaining to the device.

27. The system of claim 25, wherein the first routine is adapted to receive a maintenance request to service the device.

25 28. The system of claim 25, wherein the first routine is adapted to receive a notification of a current problem with the device.

29. The system of claim 25, wherein the first routine is adapted to receive a notification of a predicted future problem with the device.

30. The system of claim 25, wherein the first routine is adapted to receive a use index representative of the status of the device.

5 31. The system of claim 25, wherein the second routine is adapted to generate a work order for performing maintenance related to solving the problem with the device, and the third routine is adapted to communicate the work order to one or more maintenance personnel capable of performing the maintenance.

10 32. The system of claim 25, wherein the second routine is adapted to generate an order for a part related to solving the problem with the device, and the third routine is adapted to communicate the order for the part to a supplier of the part.

33. The system of claim 32, wherein the second routine is adapted to generate an order for a replacement device.

15 34. The system of claim 25, wherein the third routine is adapted to communicate the via the internet.

35. The system of claim 25, wherein the third routine is adapted to communicate the order via a telephone communication link.

36. The system of claim 25, wherein the third routine is adapted to communicate the order via a wireless communication link.

20 37. The system of claim 25, wherein the second routine is adapted to schedule an order to be fulfilled prior to failure of the device.

38. The system of claim 25, further comprising a fourth routine stored on the computer readable memory and adapted to be executed on a processor to track the status of the order.

5 39. The system of claim 38, wherein the fourth routine is adapted to receive data pertaining to a report regarding the order and to receive data pertaining to the date of the report.

40. The system of claim 39, wherein the fourth routine is adapted to receive data pertaining to the location of the order.

10 41. The system of claim 39, wherein the fourth routine is adapted to receive data pertaining to the status of the order.

42. The system of claim 38, further comprising a fifth routine stored on the computer readable memory and adapted to be executed on a processor to display tracking information relating to the status of the order.

15 43. The system of claim 25, further comprising a fourth routine stored on the computer readable memory and adapted to be executed on a processor to perform a business-to-business transaction to automatically place an order for a part.

44. The system of claim 25, wherein the first routine is adapted to receive data pertaining to one of a field device and field equipment.

20 45. The system of claim 25, wherein the first routine is adapted to receive data pertaining to the status of one of a two-wire device, a three-wire device, a four-wire device, a wireless device, a device having a processor, a variable speed driver, a controller, a multiplexer, rotating equipment, an actuator, power generation equipment, power distribution equipment, a transmitter, a sensor, a control system, a

- transceiver, a valve, a positioner, a switch, electrical equipment, a server, a hand held device, a pump, an I/O system, a smart field device, a non-smart field device, a HART protocol device, a Fieldbus protocol device, a PROFIBUS® protocol device, a WORLDFIP® protocol device, a Device-Net® protocol device, a AS-Interface protocol device, a CAN protocol device, a TCP/IP protocol device, an Ethernet device, an internet-based device, and a network communication device.
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